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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/076,154	02/14/2002	Yoshinori Hino	10417-118001/ F51-142893M	8619

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EXAMINER

TRAN, TAN N

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,154

Applicant(s)

HINO ET AL.

Examiner

TAN N TRAN

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-17 and 24-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-21 is/are rejected.
- 7) ☒ Claim(s) 22,23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☒ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of Group III, claims 18-23 in Paper No. 6 is acknowledged. In response to the election, applicant noted on the ground(s) that "claim 1 is deemed to be generic and therefore should be included in group III". In regard to claim 1 is generic, examiner makes mistake when determine claim 1 is generic as set forth in the previous restriction/election requirement. Actually, claim 1 is not generic because it recites "plural lines" that is not recited in Group III, claim 18-23.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

It does not identify the mailing or post office address of each inventor. A mailing or post office address is an address at which an inventor customarily receives his or her mail and may be either a home or business address. The mailing or post office address should include the ZIP Code designation. The mailing or post office address may be provided in an application data sheet or a supplemental oath or declaration. See 37 CFR 1.63(c) and 37 CFR 1.76.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Noto et al. (6,031,257).

With regard to claim 18, Noto et al. discloses a semiconductor device not forming any via hole under a bump electrode 25 provided at a pad portion (BP). (Note fig. 22 of Noto et al.).

With regard to claim 19, Noto et al. discloses an upper layer wiring 70a; a lower layer wiring 60; a via hole 12 connecting the upper wiring 70a and the lower wiring 60; and a bump electrode 25 provided at a pad portion (BP) covering lower layer wiring 60b, wherein the via hole 12 formed at a region except under the bump electrode 25. (Note figs. 4, 22 of Noto et al.).

With regard to claim 20, Noto et al. discloses a lower wiring 50b arranged under the bump electrode 25. (Note figs. 4, 22 of Noto et al.).

With regard to claim 21, Noto et al. discloses a gate electrode 9 formed on a semiconductor substrate 1 through gate oxide film 8; a source/drain region 10 formed so as to be adjacent to the gate electrode 9; a semiconductor region formed under the gate electrode 9 and constituting a channel (Qp); a lower layer wiring 50 connected to the source/drain region 10 with contact; a via hole 12 formed in an interlayer insulating film 15 covering the lower layer wiring 50 and formed at a region except a bump electrode 25 provided at a pad portion (BP); and an upper layer wiring 60 connected to the lower layer wiring 50 with contact through the via hole 12. (Note figs. 4, 22 of Noto et al.).

Allowable Subject Matter

4. Claims 22,23 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 22,23 are allowable over the prior art of record, because none of these references disclose or can be combined to yield the claimed invention such as a low concentration region of the same conductivity type as the source/drain region formed extending shallowly to surface layer of the semiconductor under the gate electrode so as to connect the source/drain region and to contact the semiconductor region in claims 22,23.

Conclusion

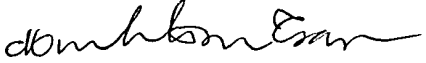
5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (703) 305-3362. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

TT

Nov 2002


Nathan Lean Tran
Primary Examiner